cc: Dick Glanzman

Ch... Co...
KCD98014...
63 ...#5
CH2M H...
4-13-87

RECEIVED

MAY 02 1991

REMD SECTION

CH2M HILL
Engineers
Planners
Economists
Scientists

April 13, 1987

W68542.WP

Ms. Alice Fuerst
U.S. Environmental Protection Agency
Region VII
726 Minnesota Avenue
Kansas City, Kansas 66101

Dear Ms. Fuerst:

Subject: Field Observations on Eagle Picher Well at Galena, Kansas, on March 6, 1987

On the morning of March 6, 1987, specific conductivity and temperature measurements were made for various depths in the well casing that is supposed to be completed into the Roubidoux aquifer to a depth of approximately 1,200 feet below local ground surface. I took measurements while at the Eagle Picher Galena facility, and Dick Glanzman observed and took notes. Our activities were approved by the company and observed by Messrs. Ray Burtram and Jim Dickerson (part-time). The following table reports our findings.

Depth (ft)	Water Temperature[a] (C°)	Specific Conductance[a] (umhos/cm)	
		Measured	Corrected[b]
80	16.5	620	720
85	16.6	600	700
100	16.5	650	750
125	16.8	1,320	1,550
150	16.5	1,390	1,640
200	16.9	1,390	1,640
250	17.0	1,330	1,560
275	17.0	1,400	1,650

[a]Average of two readings at all elevations except 250 and 275 feet which are single readings.

[b]Meter No. 1252 calibration was rechecked compared to standard solutions upon return to Denver, thus the corrected readings.

The well was apparently obstructed at the 275-foot level, and the conductivity readings were high compared to other readings reported in the Roubidoux system (420 to 565 umhos/cm). These observations suggest that this well is not suitable for monitoring water levels in the Roubidoux aquifer, as defined in our hydrology work plan.

Based on these readings, we suggest one or more of the following at some appropriate time in the future:

- Conduct more water quality testing to determine if the well is being impacted by surface water flows or has a corroded casing.
- Check the casing to determine the character of the blockage and the casing integrity.
- Repair of the well casing (if appropriate) or abandonment by grout injection--leaking Roubidoux wells were determined to be a problem during the nearby Tar Creek studies. From a technical/data acquisition basis, casing repair is desirable as it preserves this location as a data point.
- Annual monitoring of repaired casing.

Please call with any questions you may have on these observations or suggested actions.

Sincerely,

Neil M. Geitner
Field Team Leader

DE/CC2/sr072
cc: Richard Moos/CH2M HILL, DEN
Michael Thompson/CH2M HILL, KCK
Richard Glanzman/CH2M HILL, DEN